

REMARKS

The February 12, 2004 Office Action has been considered; and the amendments above together with the comments that follow are presented in a bona fide effort to completely respond to all issues raised in that Action and thereby place this case in condition for allowance.

Applicant notes with appreciation the allowance of claims 14-20.

Claims 23-27 have been cancelled, to reduce issues, and claim 28 has been recast in independent form, by incorporating the limitations of cancelled parent claim 27. A minor clarifying amendment has been made to claim 21, so that the claim consistently refers to the "home location **register**." Claim 22 has been cancelled to eliminate a non-sequitur ("the storage device") and thus avoid a potential indefiniteness. These amendments should not raise any new issues.

Applicant is concurrently filing a petition requesting withdrawal of the finality of the February 12, 2004 Office Action. If the petition is granted, the amendments above should be entered as a matter of right. However, since the amendments reduce issues and do not raise any issue requiring further search or consideration, it is believed that entry of the amendments to the claims also would be appropriate under 37 C.F.R. § 116, even if the petition were denied.

Prompt favorable reconsideration and allowance of this application, as amended above, are respectfully requested.

The New Art Rejections

In the second Office Action, claims 1-9, 11-13, 21 and 22 were rejected under 35 U.S.C. § 103 as unpatentable over US patent no. 6,366,780 to Obhan in combination with U.S. Patent No. 6,677,968 to Appelman. Obhan discloses a technique for managing traffic load in a cellular network, in response to registration activities. Registration/de-registration may be triggered by

on-off power status of the mobile stations. The Examiner recognizes that the Obhan system does not provide the mobile station power status information to an ISP. The Appelman patent discloses AOL's buddy list and instant messaging services. For example, as members of a user's buddy list log on and off, the system provides status information to update the buddy list display on the user's computer. The explanation of this first 103 rejection points to text of Appelman that states that the user station 12 includes a processor chassis 14 having a network link, and the network link may be wireless (column 3, lines 18-27). Based on this text, the Examiner apparently interprets Appelman as a teaching to send a message indicating "a change of mobile station power status to an Internet Service Provider (ISP)." From this alleged teaching of Appelman, the rejection concludes that it would have been obvious to modify Obhan to meet the claim limitation regarding providing the mobile station power status information to an ISP.

Claim 10 stands rejected under 35 U.S.C. § 103 as unpatentable over Obhan and Appelman, further in combination with U.S. Patent No. 6,636,502 to Lager et al. (hereinafter Lager). Lager teaches a technique for selecting a packet data communication network, for a data service to one of a plurality of ISPs, in the context of a general packet radio service (GPRS) type mobile network. This rejection relies on Lager (column 8, lines 31-55) for an alleged teaching to check a flag in the HLR indicating that a mobile station is linked to an ISP.

Claims 23-27 were rejected under 35 U.S.C. § 103 as unpatentable over Obhan in combination with Lager. In this context, the Examiner interpreted the Summary of Invention section of the Lager patent (columns 8 to 10) as a teaching to send a message indicating mobile station availability to an ISP. As described, however, the mobile terminal in Lager actually sends a network selection ("indication parameter") to a switch, and a connection is made to the selected network (apparently that of an ISP).

Claims 28 and 29 were then rejected under 35 U.S.C. § 103 as unpatentable over Obhan and Lager, further in combination with Appelman. Here, Appelman is cited as an alleged teaching to correlate a mobile station to an on-line customer of an ISP.

Claims 30-32 stand rejected under 35 U.S.C. § 103 as unpatentable over Lager in combination with Appelman. This rejection includes an assertion to the effect that the GPRS system of Lager meets the claim limitations, expect for correlation of a mobile station to an on-line customer of an ISP and sending a message as to mobile station availability to the on-line customer. However, the rejection concludes that such an extension of Lager would have been obvious in view of the buddy list teaching by Appelman with its reference to a wireless link.

Patentability – Traversal of the Art Rejections

Claims 23-27 have been cancelled. The rejection of those claims over Obhan in combination with Lager therefore is moot. The rejections of the other remaining claims are traversed.

Summary of Issues

The remaining rejected claims have all been rejected in one fashion or another over a combination based at least in part of Appelman. It is respectfully submitted that there are distinctions of the rejected claims over the teachings of Appelman and thus of all of the proposed combinations that rely on Appelman for buddy list and instant messaging related features.

For example, although Appelman mentions a wireless link to a processor chassis, shown as a desktop PC, that patent does not actually discuss mobile station communications or mobile network handling of the buddy list signaling messages. As such, the status information in Appelman relates to a PC, not a mobile station. By contrast, each of independent claims 1, 9, 11, 21, 28 and 30 expressly references one or more mobile stations. Also, the status information that

Appelman uses for buddy list signaling is user log-in status, not power status, such as specified in at least some of the rejected independent claims (see e.g. claim 1) or station availability as in several other claims. Combinations based on Appelman therefore cannot meet all the limitations of the various rejected claims.

A detailed explanation of patentability of the rejected claims, particularly of the independent claims, over the art, is set forth below.

Patentability of Claims 1-8

Independent claim 1 relates to a method executed in a wireless communication system. The method of this first claim involves transmitting a power-on signal and a power-off signal from a mobile station to a mobile switching center (MSC), in response to each power activation and deactivation of the mobile station. A power status for the mobile station is updated in a home location register (HLR) linked to the MSC, in response to receipt of each of the power-on and power-off signals. The method of claim 1 also entails sending a message indicating a change of mobile station power status to an Internet Service Provider (ISP), in response to each updating of the status of the mobile station in the HLR. As such, this method claim specifically references the mobile station, the power status of the mobile station and the sending of power status information about the mobile station to an ISP, in response to updating the power status in the HLR. It is respectfully submitted that the patents applied to reject this claim, Obhan and Appelman, do not fairly suggest this methodology.

Obhan discloses a technique for managing traffic load in a cellular network, in which the network maintains power status data in the VLR, in response to registration activities. If a registration indicates a change in location, a location update is provided to the HLR (see column 14, lines 46-52). The Obhan system does not provide the mobile station power status

information from the VLR or the HLR to an ISP. Appelman likewise does not suggest providing power status information for a mobile station, from a wireless network serving the mobile station, to an ISP. To the contrary, Appelman teaches PC user log-in to an ISP and using that log-in status information for buddy list notifications and related instant messaging services. The mere fact that the PC may use some undisclosed type of “wireless” link does not fairly suggest operation of the PC as a mobile station or use of station power status information instead of log-in information. As such, Appelman would not lead one of skill in the art to modify the Obhan method so as to forward mobile station power status information from an HLR of a wireless communication network to an ISP, as in claim 1.

For at least this reason, the rejection of claim 1 and claims 2-8 that depend therefrom is improper and should be withdrawn.

Patentability of Claims 9 and 10

Independent claim 9 also relates to a method, implemented in a wireless communication system. Like claim 1, the method of claim 9 involves transmitting a power-on signal and a power-off signal from a mobile station to the MSC in response to each power activation/deactivation of the mobile station, and updating the station's power status in the associated HLR in response to receipt of each power-on or power-off signal. The method of claim 9, however, entails determining whether the mobile station is associated with a subscriber of an Internet Service Provider (ISP), in response to each updating of the station's power status. If it is determined that the mobile station is associated with a subscriber of an ISP, then a change of mobile station power status signal is sent to a remote database associated with the ISP. It is respectfully submitted that the patents applied to reject this claim, again Obhan and Appelman, do not fairly suggest this claimed methodology.

As noted, Obhan only discloses a technique for managing traffic load in a cellular network, and the Obhan system does not provide mobile station power status information to an ISP. The use of PC log-in status information taught by Appelman would not lead one of skill in the art to modify the Obhan system to provide power status information of any kind from the HLR of the wireless network to an ISP. Hence, it would not have been obvious in view of Obhan and Appelman to determine that the mobile station is associated with a subscriber of an ISP, and then send a change of mobile station power status message to a remote database associated with the ISP, as specifically required by independent claim 9. Claim 9 therefore is patentable over those applied documents, and the obviousness rejection of claim 9 should be withdrawn.

For at least the same reasons, dependent claim 10 is patentable over Obhan and Appelman, even when taken further in combination with Lager. The addition of a step to check a flag in the HLR allegedly taught by Lager does not overcome the deficiencies of the basic combination of Obhan and Appelman. The section of Lager cited in the rejection of claim 10 (column 8, lines 31-55) teaches routing a user's data call through a wireless network to a pre-designated one of the user's ISPs, at log-in. This function apparently occurs only once, at log-in, and does not involve providing station power status messages to an ISP database in response to each the status update, assuming that the mobile station is associated with a subscriber of an ISP. It is respectfully submitted that Obhan, Appelman and Lager together still would not fairly teach one of skill in the art to determine that the mobile station is associated with a subscriber of an ISP, and then send a change of mobile station power status to a remote database associated with the ISP, as specifically required by dependent claim 10 (by virtue of dependency from 9). Hence, the rejection of claim 10 over Obhan, Appelman and Lager also should be withdrawn.

Patentability of Claims 11-13

In independent claim 11, the method comprises maintaining power-on and power-off status, for each of a plurality of mobile telephone stations, in a first database. A change of status message is formulated for transmission to a second database related to an ISP, in response to a change in the status for at least one of the mobile stations. Obhan does maintain status information in a network element, however, Obhan does not suggest forwarding notice of a change of status to an ISP database. Appelman teaches PC log-in and use of that user status in an ISP network to notify another user's terminal. The status information (log-in) originates with the user's PC terminal. As such, Appelman does not fairly suggest sending station status information from another (e.g. wireless) network to the ISP database.

The sections of Appelman cited in the rejection (figs. 1, 3 and 6; column 3, lines 17-27; column 5, lines 17-20; and abstract) do not support the Examiner's allegation that "Appelman discloses formulating a change of status message for transmission to a second database related to at least one Internet Service Provider (ISP) in response to a change in the status for at least one of the plurality of mobile stations." Fig. 1 simply shows the user's PC, the log-in system, the buddy list system and a database. Fig. 3 is a screen shot of a buddy list display, and Fig. 6 is a screen shot of an interactive display allowing a user to select buddy list preferences. The cited text in column 3, lines 17-27, simply describes the hardware of the system as shown in Fig. 1. Although there is a brief mention of a wireless link to the processor chassis 14, there is no suggestion that the illustrated desktop PC is a mobile station, and there certainly is no teaching of how a wireless communication network might process communications for a mobile implementation of the user device. The cited text in column 5, lines 17-20, merely refers to one of the preferences in Fig. 6, specifically to "Show me my Buddy List(s)" immediately after the

user signs onto AOL. This option opens the Buddy List window 40 (FIG. 3) when the user logs on to the system. This does not suggest sending any status information to another network element, for example, to notify another party who has included the user in their buddy list. The abstract characterizes the subject matter of the Appelman patent as a real time notification system that tracks, for each user, the logon status of selected co-users of an on-line or network system and displays that information in real time to the tracking user in a graphical interface. Clearly, these teachings of Appelman relate to operations in an ISP's network and provide information to/from the user's PC based on log-in status. However, this is not enough to fairly suggest "formulating a change of status message for transmission to a second database related to at least one Internet Service Provider (ISP) in response to a change in the status for at least one of the plurality of mobile stations," as asserted in the rejection.

In view of the failing of the Appelman patent to teach the concept cited by the Examiner, it is believed that the proposed combination of Obhan and Appelman would not have been obvious and would not meet the limitation of independent claim 11. Appelman relates to buddy list and instant messaging services implemented entirely by an ISP network. There is nothing to suggest applicability to communications between a network side database of a wireless network and a database of an ISP. Furthermore, there is nothing to teach applicability of the buddy list approach based on mobile station status as opposed to user log-in status in Appelman. Finally, Appelman does not teach how to actually combine the buddy list functionality with a wireless communication network. On these facts, it is believed that it would not have been obvious in view of Appelman to modify the network operations of Obhan to provide any kind of notice of mobile station status to an ISP database. Even if the combination were made, it is respectfully submitted that the result would entail notification of user log-in (user availability), not

notification of availability status of the mobile station, as claimed. Since the combination would not have been obvious and would not satisfy the claim requirements, the rejection of claim 11 and of dependent claims 12 and 13 should be withdrawn.

Patentability of Claim 21

A minor clarifying amendment has been made to claim 21, although this amendment should not change the scope of that independent apparatus claim. Claim 21 is directed to a wireless communications system. The claimed system includes mobile stations as well as base stations that provide wireless communications with the mobile stations. The base stations also receive power status transmissions from the mobile stations. A mobile switching center (MSC) connects to the base stations, and the mobile switching center is linked to an HLR, which maintains service profiles for each mobile station, including power status. The MSC transmits changes of power status of the mobile stations to the HLR. The system of claim 21 also includes a database, which is remote from the HLR and is associated with an ISP. The remote database of the ISP contains records relating subscribers of the ISP with respective mobile stations. The remote database connects through a data network with the HLR, so as to receive change of power status messages for the respective mobile stations from the HLR.

It is respectfully submitted that the combination of documents applied against independent claim 21 (Obhan and Appelman) does not actually teach connecting a remote ISP database through a data network with the HLR, and those documents fail to teach communication of change of power status messages for the respective mobile stations from the HLR to the remote ISP database. Hence, claim 21 patentably distinguishes over Obhan and Appelman.

More specifically, Obhan collects power status at a VLR and notifies an HLR of location changes, but Obhan does not notify any other entity of the power status of the mobile stations. Appelman teaches using log-in status (user availability) to provide notices to other users, and Appelman apparently records the log-in status of users in a database. However, there is no suggestion to link the two disparate systems in the precise manner specified in claim 21. In particular, there is no teaching to connect the wireless network node that collects power status data (HLR in the claim; VLR in Obhan) to the remote database of the ISP. The mere fact that Appelman suggests that the desktop PC may use a wireless link to the ISP network is not enough to suggest the HLR to database connection specified in claim 21. Obhan and Appelman also fail to teach the claimed communication of change of power status messages for the respective mobile stations from the HLR to the remote database.

Since the applied documents do not fairly suggest all of the limitations of independent claim 21, that claim is patentably distinct and should be in condition for allowance.

Patentability of Claims 28 and 29

Independent claim 28 is another method claim. In this method, a signal is received from a wireless mobile station. The received signal indicates a change in status of the mobile station, with regard to availability of the station for communication through a wireless network. A determination is made from a profile record associated with the mobile station in a database of the wireless network, as to whether notice of the status change should be provided to an ISP. If the notice of the status change should be provided to the ISP, the method involves sending a message indicating the changed status of the mobile station to a system of the ISP. In response to the message indicating the changed status, a correlation of the mobile station to an on-line

customer of the ISP is made; and a message indicating the change in availability of the mobile station is sent to the on-line customer of the ISP.

As noted above, this claim was rejected over the proposed combination of Obhan, Lager and Appelman (as was dependent claim 29). In the Obhan method, a registration event causes a subscriber unit to send a location update to the VLR. This event is triggered by various registration schemes, such as power-up and power-down. Attention is directed to the text at column 12, lines 25-36, as cited by the Examiner. More specifically, the subscriber unit transmits the information over the RACH to the BSS 610. The BSS 610 resultantly sends a location update request to the MSC/VLR. If the LocAreaID has changed, the MSC sends a location update message to the HLR. Attention is directed to the text at column 14, lines 46-54, as cited by the Examiner.

Although cited in the rejection for an alleged teaching of sending messages indicating when a mobile station is available and unavailable to an ISP, Lager actually teaches only that the mobile terminal sends a network selection ("indication parameter") to a switch, and a connection is made through the wireless network to the selected ISP network. By way of example, attention is directed to the abstract. Routing of a call to an ISP network and/or tear-down of a call connected to an ISP network does not actually teach sending messages regarding availability/end of availability, e.g. based on power status, from a wireless network to the ISP network. Modifying Obhan in view of Lager would only result in a system that updated power status in the VLR (Obhan) and routed data calls to a selected ISP, when the user of the station logged in for a data session with the selected ISP (Lager).

The further addition of Appelman still would not result in a method that meets the limitations of the claims. Appelman only teaches notification techniques that are based on user

log-in, not station status. As such, the combination of Obhan, Lager and Appelman would only result in a system that updated power status in the VLR (Obhan) and routed data calls to a selected ISP, when the user of the station logged in for a data session with the selected ISP (Lager), where the user log-in status at the ISP is used for the buddy list notification functions. Such a three-way combination would not involve “determining from a profile record associated with the mobile station in a database of the wireless network, if notice of the status change should be provided to an Internet Service Provider (ISP);” or the “sending a message indicating the changed status of the mobile station to a system of the ISP.” In the proposed combination, data sessions are routed to a selected ISP when a user logs in. Nor would the proposed combination result in steps of “in response to the message indicating the changed status, correlating the mobile station to an on-line customer of the ISP; and sending a message indicating the change in availability of the mobile station to the on-line customer of the ISP.” Any messages sent to the on-line customer of the ISP would only be responsive to user log-in (Appelman), not station status.

Since the proposed combination of Obhan, Lager and Appelman would not meet the limitations of claim 28, claim 28 and dependent claim 29 patentably distinguish over that combination. Claims 28 and 29 therefore should be allowable.

Patentability of Claims 30-32

As noted earlier, claims 30-32 were rejected over the proposed combination of Lager and Appelman. It is respectfully submitted that those two documents do not fairly suggest the methods recited in these claims and the claims are patentable.

These claims relate to methods, albeit from the perspective of the ISP. The method of independent claim 30 involves receiving a first signal from a wireless network, at an ISP system

coupled to a packet data network. The received first signal indicates that a wireless mobile station is available for communication through the wireless network. In response to this signal, the method entails correlating the mobile station to an on-line customer of the ISP. Then, a message is sent through the packet data network to the on-line customer of the ISP, indicating the availability of the mobile station.

Lager routes data communications through a wireless network to a selected ISP, when the user initiates a log-in. Appelman notifies an on-line customer of availability of a user, when the user logs in for communications via the ISP network. It is respectfully submitted that any method fairly suggested by Lager and Appelman would route a data session to an ISP for log-in and would provide buddy list notification in response to user log-in. As such, the combination would not result in a method in which an ISP system receives a signal that indicates that a wireless mobile station is available for communication through the wireless network, nor would the method of Lager-Appelman send a message through the packet data network to the on-line customer of the ISP, indicating the availability of the mobile station.

Since the combination would not meet these limitations of independent claim 30, that claim should be patentable over the combination of Lager and Appelman. Claim 30 and dependent claims 31 and 32 therefore should be in condition for allowance.

Conclusions

Remaining claims 1-21 and 28-32 should all be allowable. Claims 14-20 were allowed in the February 12, 2004 Action, and claims 1-13, 21 and 28-32 should be patentable over the applied documents for the reasons set forth above. It is believed that this response overcomes all issues discussed in the Office Action and places this case in condition for immediate allowance. Prompt favorable reconsideration and allowance of this case are earnestly solicited.

If any further issue should arise, which may be addressed in an interview or obviated by an Examiner's amendment, it is requested that the Examiner telephone Applicant's representative at the number shown below.

To the extent necessary, if any, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY

A handwritten signature in black ink, appearing to read "Keith E. George", written over a horizontal line.

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